

FUDALEWICZ-NIEMCZYK, Wladyslawa

Attempted estimation of threadworms in the digestive system in sheep according to the examination of feces. Wlad. parazyt. 8 no.3:331-336 '62.

1. Katedra Zoologii Wyzszej Szkoły Rolniczej, Krakow.  
(ENTEROBIUS infect) (SHEEP dis) (FECES parasitol)

FEDAL WISE, D.

Production of clothes for the clothing industry; a subject for discussion. p. 176  
(MOCNRYZANCA, Vol. 5, No. 9, Sept. 1954, Warszawa, Poland)

SO: Monthly List of East European Acquisitions, (M.E.L.), 13, Vol. 3, No.12, Dec.  
1954, Uncl.

HAMMER, L. P.; FUDEANU, S.

On the solution of transport problems by the Egervary method. Comunicarile AR 11 no.7:773-778 '61.

1. Comunicare prezentata de academician Gr. C. Moisil.

SAKHAROV, P.P., prof.; GUDKOVA, Ye.I.; BUREVA, V.B.; FUDEL', T.N.

Hereditary changes in microbes during the process of developing antibiotic and sulfamide resistance and "dependence."

Agrobiologiya, no.3:362-370 My-Je '59. (MIRA 12:9)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova,  
kafedra genetiki i Gosudarstvennyy nauchno-issledovatel'skiy  
institut ukha, gorla i nosa.  
(Antibiotics) (Bacteria, Effect of drugs on)

7 T.P.  
MERKUR'YEVA, Ye.K.; ~~FUDEL', T.P.~~; TAL'SKAYA, I.N.; AL'BITSKAYA, A.N.

Experimental proof of the possibility of obtaining three-  
breed hybrid chickens in the first generation. Uch. zap. Mosk.  
un. no.186:103-117 '56. (MLRA 9:12)

(Hybridization) (Poultry breeding)

SAKHAROV, P.P.; GUDKOVA, Ye.I.; POLSHKOVA, V.N.; FUDEL', T.N.

Study of transformational activity in streptomycin resistance in pathogenic microbes. *Biul. eksp. biol. i med.* 52 no.10:80-84 0 '61.  
(MIRA 15:1)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo instituta ukha, gorla i nosa i Moskovskogo gosudarstvennogo universiteta imeni Lomonosova. Predstavlena deystvitel'nym chlenom AMN SSSR N.N. Zhukobym-Verezhnikovym.  
(STREPTOMYCIN) (BACTERIA, PATHOGENIC)

FUDEL'MAN, YU. L.

AID P - 581

Subject : USSR/Engineering  
Card 1/1 Pub. 78 - 18/22  
Author : Fudel'man, Yu. L. and Popekhin, M. M.  
Title : Approximate method of modelling in tank building  
Periodical : Neft. Khoz., v. 32, #8, 82-85, Ag 1954  
Abstract : The use of a small model tank with geometrical, but not physical similarity, is described for simplified determination of the distribution of stresses, the dimensions of construction details, and for solution of various problems on assembling, maintenance, and repairs. 2 tables.  
Institution : None  
Submitted : No date

FUDEL' OSIPOVA, S.I.; MARTYNEKO, O.A.

Formation of a membrane potential in the early period of ontogenesis and its connection with the size of the muscle fiber. Biofizika 8 no.1:45-49 '63. (MIRA 17:8)

1. Institut gerontologii i eksperimental'noy patologii AMN SSSR, Kiyev.

S.F.  
FUDEL'-OSIPOVA, S.A. (Kiyev)

Some biomorphological regularities in the aging of skeletal  
muscles. Vest. AMN SSSR 18 no.2:60-70 '63. (MIRA 17:5)

1. Institut gerontologii i eksperimental'noy patologii AMN SSSR.

FUDEL'-OSIPOVA, S.I.; RODIONOV, G.A.

Relation between some physiological and histomorphological changes in the neuromuscular apparatus of animals during aging. Biul. eksp. biol. i med. 56 no.8:50-53 Ag '63.

(MIRA 17:7)

1. Iz laboratorii biologii (zav. - prof. S.I. Fudel'-Osipova) i laboratorii patomorfologii (nauchnyy rukovoditel' - prof. M.K. Dal') Instituta gerontologii i eksperimental'noy patologii (direktor - chlen-korrespondent AMN SSSR prof. D.F. Chebotarev) AMN SSSR. Predstavlena deystvitel'nym chlenom AMN SSSR N.N. Gorevym.

FUDEL'-OSIPOVA, S.I.; MARTYENKO, O.A.

Change in the water-salt composition of the muscles of rats in  
ontogeny. Biofizika 10 no.5:796-800 '65.

(MIRA 18:10)

1. Laboratoriya biologii Instituta gerontologii AMN SSSR, Kiyev.

GORBY, N. N.; FROLKIS, V. V.; FUDEL-OSSIPOVA, S. I.

Changements Des Reactions D'Adaptation Au Cours Du Vieillessement  
De L'Organisme. Enviromental Factors

Gerontology, 6th International Congress, Copenhagen, Denmark  
11-16 August 1963

FUDEL'-OSIPOVA, S.I.

Electrophysiological study of the receptors of the joint capsule. Biul. eksp. biol. i med. 52 no.9:3-9 S '61. (MIRA 15:6)

1. Iz fiziologicheskoy laboratorii (zav. - prof. S.I. Fudel'-Osipova) Ukrainskogo nauchno-issledovatel'skogo instituta ortopedii i travmatologii (dir. I.P. Alekseyenko), Kiyov. Predstavlena deystvitel'nym chlenom AMN SSSR N.H. Gorevym.  
(JOINTS) (ELECTROPHYSIOLOGY) (RECEPTORS (NEUROLOGY))

MAKARCHENKO, A.F. [Makarchenko, O.F.]; FUDEL'-OSIPOVA, S.I. [Fudel'-Osypova, S.I.]; KOSTYUK, P.G. [Kostiuk, P.H.]

Danylo Semenovych Vorontsov; on his 75th birthday. Fiziol. zhur.  
[Ukr.] 8 no.1:3-12 Ja-F '62. (MIRA 15:2)  
(VORONTSOV, DANYLO SEMENOVYCH, 1886-)

FUDEL'\_OSIPOVA, S.I. [Fudel'-Osypova, S.I.]

D.S.Vorontsov's phenomenon in one neuromotor unit. Fiziol. zhur.  
[Ukr.] 8 no.1:38-44 Ja-F '62. (MIIA 15:2)

1. Laboratoriya biologii Instituta gerontologii i eksperimental'noy  
patologii AMN SSSR, Kiyev.  
(ELECTROPHYSIOLOGY)

FUDEL' OSIPOVA, S.I. [Fudel'-Osypova, S.I.]; MARTYMENKO, O.A.

Dynamics of the development of the membrane potential of muscle fibers in early ontogenesis. Fiziol. zhur [Ukr.] 8 no.4:442-448 (MIRA 18:4)  
Jl-Ag '62.

1. Laboratoriya biologii Instituta gerontologii i eksperimental'noy patologii AMN SSSR, Kiyev.

FUDEL'-OSIPOVA, S.I.; YEMETS, G.L.; BURICHENKO, A.V.

Afferent innervation of the capsule of the knee joint. Ortop.  
travm.i protez. 22 no.1:31-37 Ja '61. (MIRA 14:5)

1. Iz fiziologicheskoy i patomorfologicheskoy laboratorii Ukrainskogo  
nauchno-issledovatel'skogo instituta ortopedii i travmatologii v  
Kiyeve (dir. - dotsent I.P.Alekseyenko, nauchnyy rukovoditel' -  
chlen-korrespondent AMN SSSR prof. F.R.Bogdanov). Adres avtorov:  
Kiyev, ul.Vorovskogo, d.27, Institut ortopedii i travmatologii.  
(KNEE--INNERVATION)

FUDEL'-OSIPOVA, S.I. [Fudel'-Osypova, S.I.]; YEMETS, G.L. [IEmets', H.L.];  
BURICHENKO, A.V. [Burychenko, A.V.]

Electrophysiological and histomorphological characteristics of  
joint receptors. *Fiziol. zhur.* [Ukr.] 7 no.2:197-207 Mr-Apr '61.  
(MIRA 14:4)

1. Laboratory of Physiology and Pathomorphology of the Kiev Institute  
of Orthopedics and Traumatology.  
(JOINTS—INNERVATION)

FUDEL'-OSIPOVA, S.I., prof.

Current problems in the physiology of bone tissue. Ortop.travm.i  
protez. 21 no.5:37-43 My '60. (MIRA 13:9)

1. Iz fiziologicheskoy laboratorii (zav. - prof. S.I. Fudel'-Osipova)  
Ukrainskogo nauchno-issledovatel'skogo instituta ortopedii i travma-  
tologii v Kiyeve.

(BONES)

*Vorontsov, D.S.; Fudel'-Osipova, S.I.*

VORONTSOV, D.S.; FUDEL'-OSIPOVA, S.I.

Correlation of stimulation and excitation of a plantar preparation from a frog by separate stimulations. *Nauk.sop.Kiev.un.*8 no.7:41-62 '50 [i.e.'49].  
(MIRA 9:10)

1.Sektor obshchey fiziologii.  
(NERVES) (MUSCLES) (ELECTROPHYSIOLOGY)

FUDRL'-OSIPOVA, S.I.

Perielectretonus. Nauk.zap.Kiev.un.8 no.7:63-92 '50 [1.o.'49].  
(MLRA 9:10)

1.Sektor obshchey fiziologii.  
(NERVES) (MUSCLES) (ELECTROPHYSIOLOGY)

FUDEL'-OSIPOVA, S.I.; KHOKHOL, Ye.N.

Conditioned reflex disorders in chronic dyspepsia in children. Zh. vysshei  
nerv. deiat. 3 no.2:260-266 Mar-Apr 1953. (CLML 24:4)

1. Department of Normal Physiology and Department of Hospital Pediatrics of  
Kiev Medical Institute imeni Academician A. A. Bogomolets.

FUDNL'-OSIPOVA, S.I.

Struggle against the metaphysical "all-or-nothing" law by Russian  
physiologists. Vop. fiziol. no.7:15-26 '54. (MLRA 8:1)

(HEART, physiology,

all-or none law, critique by Russian physiologists)

FUDEL'-OSIPOVA, S.I.

Effect of antidromic impulses on reflex reactions. Vopr.fiziol. (MIRA 1481)  
no.8:71-79 '54.

1. Institut fiziologii Kiyevskogo gosudarstvennogo universiteta.  
(NERVES, physiology,  
eff. of antidromic impulses on reflex  
reaction)  
(REFLEX,  
eff. of antidromic impulses on reflex  
reaction)

FUDEL'-OSIPOVA, S.I.; MSZHENINA, Ye.P.

Electric activity of the muscles of children with congenital spastic cerebral paralysis during spontaneous contractions and changes in this activity following a treatment with tropacin. Fiziol.zhur. [Ukr.] 1 no.2:7-14 Mr-Apr '55. (MLRA 9:9)

1. Ukrains'kiy tsentral'niy naukovo-doslidniy institut ortopedii i travmatologii, elektrofiziologichna laboratoriya.  
(MUSCLES) (ELECTROPHYSIOLOGY)  
(PARALYSIS, CEREBRAL) (ANTISPASMODICS)

FUDEL'-OSIPOVA, S.I., professor (Kiyev)

Physiology of osseous tissue. Vrach.delo no.2:155-160 P '56.

(MLRA 9:7)

1. Fiziologicheskaya laboratoriya (zaveduyushchiy professor  
S.I.Fudel'-Osipova) Ukrainского nauchno-issledovatel'skogo  
instituta ortopedii i travmatologii  
(BONE)

FUDEL' - OSIPOVA, S. I.

USSR/General Division. History. Classics.  
Personalities.

A-2

Abs Jour : Ref Zhur-Biologiya, No 20, 1957, 85052

Author : L. G. Trofimov, G. I. Fudel'-Osipova,  
P. G. Kostyuk

Inst :  
Title : Daniil Semenovich Vorontsov (On his 70th  
Birthday)

Orig Pub : Fiziol. Zh. SSSR, 1956, 42, No 11, 1004-1005

Abstract : This marks the 45th anniversary of the scientific and pedagogical activities of the physiologist Vorontsov, a corresponding member of the Academy of Sciences UkSSR, who was born in 1886. He studied problems of general neurophysiology, of electrophysiological analysis of nerve processes; in

Card 1/2

USSR/General Division. History. Classics.  
Personalities.

A-2

Abs Jour : Ref Zhur-Biologiya, No 20, 1957, 85052

Abstract : particular, he investigated the conditions determining electrocardiogram configurations. He studied the role of various ions in the stimulation process and analyzed the electrical manifestations of stimulation reaction currents, etc.

Card 2/2

FUDEL'-OSIPOVA, (Kiyev)

Electromyographic indications of disorders of muscles and their  
regeneration in poliomyelitis. Vrach. delo no.3:249-251 Mr '57  
(MLRA 10:5)

1. Elektrofiziologicheskaya laboratoriya (zav.-prof. S.I. Fudel'-  
Isipova) Ukrainskogo nauchno-issledovatel'skogo instituta ortopedii i  
travmatologii.

(POLIOMYELITIS) (ELECTROMYOGRAPHY) (MUSCLES--DISEASES)

FUDEL'-OSIPOVA, S.I., professor

At the Physician's Congress in India. Vrach.delo no.6:661-663 Je '57.  
(MEDICINE) (MLRA 10:8)

FUDEL'-OSIPOVA, S.I.

Role of afferent impulses in the development of a stable inhibition focus during the action of a direct current on the spinal cord. Nauk zap. Kyiv. un. 16 no.17:217-221 '57. (MIRA 13:2)  
(INHIBITION) (SPINAL CORD) (ELECTROPHYSIOLOGY)

FUDEL'-OSIPOVA, S.I. [Fudel' -Osypova, S.I.], SHCHEGOLEVA, I.V. [Shchcholieva  
I.V.]

Electrophysiological analysis of afferent impulses of the mandibular  
nerve [with summary in English]. *Fiziol.zhur.* [Ukr] 4 no.4:485-494  
Jl-Ag '58 (MIRA 11:10)

1. Kiyevskiy stomatologicheskii institut, kafedra normal'noy fizio-  
logii i Institut ortopedii i travmatologii, laboratoriya fiziologii.  
(TEETH--INNERVATION)

FUDEL'-OSIPOVA, S.I., prof.; OSIPOV, V.Ya., doktor med.nauk (Kiyev)

Notes on medical life in India. Vrach.delo no.2:207-211  
# '59. (MIRA 12:6)

(INDIA--MEDICINE--STUDY AND TEACHING)

FUDEL'-OSIPOVA, S.I. (Kiyev)

Status and teaching of physiology in India. Fiziol.zhur.  
45 no.6:732-735 Ja '59. (MIRA 12:8)  
(PHYSIOLOGY, educ.  
in India, current status (Rus))

FUDERER, A.

TECHNOLOGY

FUDERER, A. Application of powder metallurgy. p. 20

Vol. 5, no. 6, 1958

Monthly List of East European Accessions (EEAI) LC, Vol 8, no. 3  
March 1959 Unclass

FUDERER, A., ina.

Vacuum radiators. Strojarstvo 5 no.5/6:2-6 '63.

FUDERER \* LUETIC, P.; BRIHTA, I.

The activity of some Ib and VIII-group metals for hydrogenations and dehydrogenations of oxy-compounds. In English.p.75.

CROATICA CHEMICA ACTA. (Hrvatsko kemijsko drustvo, Sveuciliste u Zagrebu i Hrvatsko prirodoslovno drustvo) Zagreb, Yugoslavia. Vol. 31, no. 2, 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 2, 1960.

Uncl.

FUDIM, A.H.

Collaboration of scientific and production personnel. Med.  
prom. 13 no.4:64 Ap '59. (MIRA 12:6)  
(DRUG INDUSTRY)

FUDIM, A.M., provizor

On the fortieth anniversary of the nationalization of drug stores  
in the Tatar A.S.S.R. Kaz.med.zhur. 40 no.4:110 J1-Ag '59.  
(MIRA 13:2)

(TATAR A.S.S.R.--DRUG STORES)

FUDIM, A.M. (Kazan'); KAZNACHEYEV, A.A. (Kazan')

40th anniversary of the pharmaceutical industry in the Tatar  
A.S.S.R. Kaz.med.zhur. no.5:95-96 S-0 '62. (MIRA 16:4)  
(TATAR A.S.S.R. —DRUG INDUSTRY)

FUDIM, A.M. (Kazan')

History of the nationalization of pharmacies in Bashkiria from  
1917 to 1919. Kaz. med. zhur. no.5:103-104 S-0'63  
(MIRA 16:12)

ABRAMOV, Viktor Leonidovich; SMOL'YANINOVA, Lyutsiya Sergeyevna;  
~~FUDIM, Dmitriy Markovich~~; LIFNITSKIY, A.M., red.; GRANOVSKAYA,  
G.V., red. izd-va; BELGUROVA, I.A., tekhn. red.

[Making pattern foundry equipment from epoxy resins; from  
practices of the Lapse Fittings Plant in Leningrad] Izgotovle-  
nie liteinoi model'noi osnastki iz epoksidnykh smol; iz opyta  
Leningradskogo armaturnogo zavoda imeni Lapse. Leningrad,  
1962. 24 p. (Leningradskii dom nauchno-tekhnicheskoi propa-  
gandy. Obmen peredovym opytom. Seriya: Liteinoe proizvodstvo,  
no.3) (MIRA 15:9)

(Patternmaking)

**AUTHOR:** Goncharov, I.M., Fudim, L.I., Ladyshenskaya, F.M. and Ryabchikova, O.A., Engineers. 133-5-21/27

**TITLE:** Phosphatising and glazing of wire before drawing. (Fosfatirovaniye i ostekleniye provolki pered volocheniyem.)

**PERIODICAL:** "Stal'" (Steel), 1957, <sup>17</sup>pp. 464-465 No. 5, (U.S.S.R.)

**ABSTRACT:** Methods of phosphatising and glazing wire before drawing developed in the Magnitogorsk works (Magnitogorskiy Zavod) on the basis of experience of the Molotov Works in Leningrad (Leningradskiy Zavod im. Molotova) are described.

**ASSOCIATION:** Magnitogorsk Calibration Works (Magnitogorskiy Kalibrovochnyy Zavod)

**AVAILABLE:**

Card 1/1

LADYZHENSKAJA, F.M.; RYABCHIKOVA, O.A.; FUDIM, L.I.; CHETVERTKOVA, V.A.;  
LAPSHIN, L.Ya.

Phosphatizing in the cold upsetting of reinforcement elements.  
Stal' 21 no.5:471-474 My '61. (MIRA 14:4)

1. Nauchno-issledovatel'skiy institut metiznoy promyshlennosti  
i Magnitogorskiy kalibrovochnyy zavod.  
(Forging) (Phosphate coating)

S/133/61/000/012/006/006  
A054/A127

AUTHORS: Ladyzhenskaya, F.M.; Ryabchikova, O.A.; Fudim, L.I.; Chechetkina, Zh.A.; Lapshin, L.Ya.

TITLE Preliminary parkerizing of wires prior to drawing on production lines

PERIODICAL: Stal', no. 12, 1961, 1,129 - 1,132

TEXT: Parkerizing contributes towards higher drawing speeds, reduces rejects and raises the service life of the wire. As only clean wire can be parkerized, tests were made with pickling and washing the wire prior to parkerizing. Scale can be quickly removed when pickling in a hot 18-% concentration of hydrochloric acid at 65 - 70°C, adding velosite as foaming agent (0.5 kg/m<sup>2</sup>) and pickling for 15 sec. When this pickling bath is used and the wire is washed thoroughly afterwards, no abrasion of the wire is necessary. Another effective bath composition is a 20-% solution of H<sub>2</sub>SO<sub>4</sub> at 75 - 80°C for 20 sec. After this treatment, however, abrasion of the wire can not be omitted. When preparing the monophosphate-zinc solution for the process, care must be taken to obtain a solution which has a sufficient acidity, without, however, having an ex-

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Preliminary parkerizing of wires prior to ....

S/133/61/000/012/006/006  
A054/A127

cess amount of free acidity, which would deteriorate the quality of coating. The best results were obtained by adding zinc nitrate (20 g/l) to the phosphate solution. This increases the general acidity of the solution from 13.8 to 25 and accelerates the process particularly for low concentrations and results in a phosphate coating three times thicker than the standard coating. When applying zinc phosphate with a concentration of 4 or 6% and adding zinc oxide and zinc nitrate, parkerizing is effected rapidly at 70 - 80°C, keeping the wire in the bath for 20 sec. The weight of coating will be about 3.5 g/m<sup>2</sup>. The addition of 100 g/l sodium nitrate also accelerates the process. Zinc oxide and zinc nitrate should be used in combination: the former to decrease the free acidity of the solution somewhat, while the latter is applied to raise the general acidity of the bath. In the continuous wire drawing process parkerizing is carried out after pickling in 18 - 20% sulfuric acid with maximum 5% FeSO<sub>4</sub> at 70 - 80°C and washing in water. The phosphate bath should have an acidity of 35 - 60 and a free acidity of 3 - 6, a temperature of 70 - 80°C. A zinc-phosphate concentrate (heated to 70°C) containing NaNO<sub>3</sub> has to be added to the bath. The entire process is completed by washing in running water and dipping in a 2 - 3% soapy solution (at 50 - 60°C) or by liming. The last phase of the process is drying at 150 - 200°C. The wire prepared in this way is then fed

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Preliminary parkerizing of wires prior to ....

S/133/61/000/012/006/006  
A054/A127

into the drawing stand. It was found in practice that drawing rates of 900 m/  
/min can be obtained by passing the wire twice through the phosphate bath (40  
sec instead of 20). In the tests for wires 1.3 - 1.7 mm in diameter 4 kg/ton  
phosphoric acid and 0.83 kg/ton zinc were used. There are 4 figures, 3 tables  
and 9 references: 5 Soviet-bloc and 4 non-Soviet-bloc. The references to the  
English-language publications read as follows: H.A. Holden, S.I. Scouse, Wire  
Industry, 1949, v. 16, no. 192; V.D. Smith, Wire and Wire Products, 1945, p.II,  
no. 2.

ASSOCIATIONS: NIIMETIZ i Magnitogorskiy kalibrovchnyy zavod (Magnitogorsk  
Grooving Plant)

Card 3/3

ACCESSION NR: AT4042435

S/0000/64/000/000/0042/0049

AUTHOR: Fudim, Ye. V.

TITLE: Pneumatic time devices

SOURCE: Vsesoyuznoye soveshchaniye po pnevmo-gidravlicheskoj avtomatike. 5th, Leningrad, 1962. Pnevmo- i gidroavtomatika (Pneumatic and hydraulic control); materialy\* soveshchaniya. Moscow, Izd-vo Nauka, 1964, 42-49

TOPIC TAGS: automation, automatic control system, pneumatic control system, time device, pneumatic time device, generator, impulsor, command device, pneumatic aperiodic unit, discrete output relay

ABSTRACT: Pneumatic time devices are designed to form discrete pneumatic signals of required duration. Their operating principle is based on the relationship between the time interval and the range of variation of pressure from one fixed value  $P_a$  to another  $P_b$ . The basic components of these devices are the pneumatic aperiodic unit, which establishes a single-valued functional relationship between time and the range of pressure variation, and the discrete-output relay which reverses its output when a given limit of the pressure variation is reached. Thus, the duration of the relay output (1 or 0) equals, respectively, the time of the pressure rise from  $P_a$  to  $P_b$  or the drop from  $P_b$  to  $P_a$ . In the present paper, the

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Card

ACCESSION NR: AT4042435

author goes on to discuss the use of these basic components to form various time devices, from the simplest impulsors and generators, the schematic diagrams and cyclograms of which are included, to more accurate impulsors and generators and complex command devices. In an appendix, the determination of the optimal values of  $P_a$  and  $P_b$  is outlined. Orig. art. has: 11 figures and 10 numbered formulas.

ASSOCIATION: Voronezhskiy filial Opytno-konstruktorskogo byuro avtomatiki  
(Voronezh Branch of the Experimental Design Bureau for Automation)

SUBMITTED: 29 Jan 64

UB CODE: IE

NO REF SOV: 002

ENCL: 00

OTHER: 000

2/2

Card

ACCESSION NR: AT4042442

S/0000/64/000/000/0096/0101

AUTHOR: Fudim, Ye. V.

TITLE: Pneumatic pulsed optimizers

SOURCE: Vsesoyuznoye soveshchaniye po pnevmo-gidravlicheskoj avtomatike. 5th, Leningrad, 1962. Pnevmo- i gidroavtomatika (Pneumatic and hydraulic control); materialy\* soveshchaniya. Moscow, Izd-vo Nauka, 1964, 96-101

TOPIC TAGS: automation, automatic control system, feedback, pneumatic control system, optimization, pneumatic optimizer, pulsed optimizer, automatic optimization, extremal regulator

ABSTRACT: The automation of production processes often necessitates automatic optimization with the use of extremal regulators. The solution of such a problem for inertial plants with time constants of several minutes to several hours cannot be accomplished with the aid of extremal regulators whose output coordinates vary continuously. The necessity of developing optimizers with discrete effects thus arises. The present paper considers

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ACCESSION NR: AT4042442

the design and operation of one- and two-channel pneumatic pulsed optimizers. The mode of operation of the single-channel pulsed optimizer, which is constructed entirely of universally applicable elements and is designed to seek the optimal value of the output coordinate Y of an inertial controller, is as follows: periodically, with a frequency determined by the dynamic properties of the device, the regulator increases or decreases the input coordinate X of the device by a definite prescribed amount. The direction of the change in the output coordinate in response to a change in X determines the direction of the subsequent change in X, which remains constant as long as the output is improving but reverses in sign if the output becomes worse. The general mode of operation of the two-channel optimizer, which is designed to seek an extremal value by changing two input coordinates in succession, is the same, the criterion of optimality being a deterioration in output following upon an improvement. Schematic diagrams of both of these devices are presented, as well as cyclograms of their operation. Orig. art. has: 4 figures.

ASSOCIATION: Voronezhskiy filial Opytno-konstruktorakogo byuro avtomatiki (Voronezh Branch of the Experimental Design Bureau for Automation)

Card 2/3

ACCESSION NR: AT4042442

SUBMITTED: 29Jan64

SUB CODE: IE

NO REF SOV: 003

ENCL: 00

OTHER: 001

Card 3/3

APPROVED FOR RELEASE: 06/13/2000

SOURCE CODE: UR/0000/06/000/000/0000/0041

AUTHOR: Feodor, Ya. V.

ORG: none

TITLE: Design of pneumatic cyclic delay devices

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Pnevmoavtomatika (Pneumatic automation). Moscow, Izd-vo Nauka, 1966, 36-41

TOPIC TAGS: pneumatic control, pneumatic device, automatic pneumatic control, delay mechanism

ABSTRACT: The effect of the parameters of the digital command generator on the operation of cyclic delay devices is examined. Figure 1 shows the diagram of the basic cyclic delay system. This system consists of two control valves (the normally open 1, and the normally closed 2) of the "normally-closed" type and two repeaters (3 and 4), either analog or incremental which form two half-cycle series-connected delays. Both valves are controlled by the pulse command  $P_t$  which determines the delay cycle. Each half-cycle delay results from the input valve being open during the half-cycle and the repeater storing the value of the input signal. During the next half-cycle the signal is transferred to the second repeater. The required control force on the valves

Card 1/2

L 09479-57  
ACC NR: AT6021723

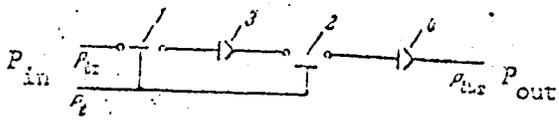


Fig. 1.

is determined by the differential pressure and the relative area. Three types of control valves are considered: three-membrane, two-membrane, and single-membrane units. The control forces for the operation of each type of the valve are calculated. For the correct operation of the delay device, a certain operation of the control valves is necessary, such that the input at all times is higher than of the output, i. e., the simultaneous opening of both valves is inadmissible. Hence, the characteristics of the control signals must be tailored to fulfill this requirement. The characteristics of the control signals are particularly important for high-frequency operation. There is an advantage in using two separate but time dependent control commands since single-membrane valves can be reliably operated in this manner. An example of operating the delay device of control command is given. On fig. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

ISSUE NO: 13,14/      ISSUE DATE: 01.01.63

L 44268-66 EWI(1)/EEC(k)-2 GD

ACC NR: AT6021742

SOURCE CODE: UR/0000/66/000/000/0180/0184

AUTHOR: Fudim, Ye. V.

ORG: none

TITLE: Pneumatic amplifiers 25

48  
BT1

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Pnevmoavtomatika (Pneumatic automation). Moscow, Izd-vo Nauka, 1966, 180-184

TOPIC TAGS: pneumatic device, pneumatic control system, amplifier design

ABSTRACT: Several types of pneumatic amplifiers<sup>14</sup> of the USEPPA series are described and possible ways of improving their gain and stability are discussed. The operation of pneumatic amplifiers is based upon the pressure conversion performed by various combinations of amplification stages. Pressure conversion or pressure amplification is accomplished by means of nozzle-flapper valve amplifiers. The schematic diagram of this amplifier is shown and its performance with various combinations of resistive elements and the applications of different nozzle types are shown. It is shown that the sensitivity of this amplifier depends upon the sliding range of the flapper and its dimensions. The gain of the amplifier can be improved by raising the slope characteristics of the input signal or by replacing its fixed resistor by an appropriate eject-

Card 1/2

ACC NR: AT6021742

or. Single and double membrane amplifiers used in cascades of pneumatic amplifiers are also discussed and schematic diagrams are shown. Orig. art. has: 8 figures, 4 formulas. o

SUB CODE: 13/

SUBM DATE: 03Feb66/

ORIG REF: 003

[14]

Card 2/2 *Feb*

EWT(d)/EWT(1)/EEC(k)-2/EWP(v)/EWP(k)/EWP(h)/EWP(1) IJP(c) BB/GG  
ACC NR: AP6035742 SOURCE CODE: UR/0413/66/000/019/0104/0104

INVENTOR: Galata, O. G.; Koloydenko, A. L.; Stukalov, A. M.; Fudim, Ye. V. 43

ORG: none

TITLE: Pneumatic integrator. Class 42, No. 186772. [announced by the Voronezh Branch of the Experimental Design Office for Automation (Vronezhskiy filial opytно-konstruktorskogo byuro avtomatiki)]

SOURCE: Izobreteniya, promyshlennyye obratzy, tovarnyye znaki, no. 19, 1966, 104

TOPIC TAGS: pneumatic device, fluid computer

ABSTRACT: An Author Certificate has been issued for a pneumatic integrator which incorporates a pulsating resistor, pneumatic contacts, pneumatic capacitors, and an output amplifier (see Fig. 1). To improve the integration accuracy of alternating

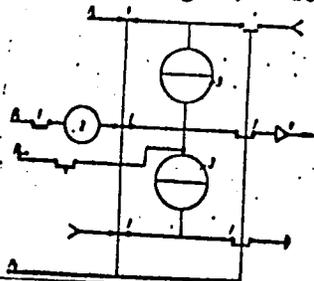


Fig. 1. Pneumatic integrator

- 1 - Contacts; 2 - pulsating resistor;
- 3 - pulsating capacitor; 4 - output amplifier.

Card 1/2

UDC: 681.142.07-525

L 07454-67

ACC NR: AP6035742

differences of incoming signals, the normally closed contact (ncc) of the pulsating resistor is connected to one incoming channel, and the normally open contact (nvc) is connected to the working chambers of two pulsating capacitors and by the ncc to the output amplifier. The upper capacitor is connected by the nvc to a second input channel and by the ncc to the power supply channel; the lower capacitor is connected by the nvc to the power supply channel and by the ncc to the exhaust. Orig. art. has: 1 figure.

SUB CODE: 13, 09/ SUBM DATE: 15May64/ ATD PRESS: 5104

Card 2/2

L 07241-67 EEC(k)-2/EWP(k)/EWT(d)/EWP(h)/EWP(l)/EWP(v) IJP(c) GG/BB  
ACC NR: AP6030651 SOURCE CODE: UR/0020/66/169/006/1293/1295

AUTHOR: Fudim, Ye. V.

45  
B

ORG: Institute of Automation and Remote Control (Institut avtomatiki i telemekhaniki)

TITLE: Intermittent-action pneumatic computer equipment  
ibc

SOURCE: AN SSSR. Doklady, v. 169, no. 6, 1966, 1293-1295

TOPIC TAGS: pneumatic computer, computer component, computer technique, computer design

ABSTRACT: The author describes a new method of performing computations in the field of pneumatic automation. The method makes it possible to carry out basic computational operations with a high degree of accuracy and in a technically simple manner. On the basis of these calculations a linear remote-controlled pneumatic resistance and other elements are designed. A set of elements so designed is sufficient for the creation of a pneumatic computer system based on regular methods of component-by-component circuit design rather than the existing principle calling for the assembly of systems from complex mechanical devices with all of its inherent shortcomings. The method consists essentially in the fact that the computations make

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UDC: 681.142.1.01

ACC NR: AP6030651

use of the state of the gas law, which states that for a given gas and at a certain temperature a unique interrelation exists among three gas parameters: absolute pressure, volume, and weight. No converting equipment is required when the equation describing this interaction is employed for high-precision computations with real gases and within fairly wide pressure intervals. As an illustration of the method, brief descriptions of two components which incorporate it are given: a pulsating-discharge linear pneumatic resistance, and a multiple-input unit for converting pressure values to discontinuous flow rates. The paper was presented by Academician V. A. Trapeznikov, 7 Dec. 65. Orig. art. has: 4 figures and 2 formulas.

[26]

SUB CODE: 09/ SUBM DATE 06Dec65/ OTH REF: 001/

Card 2/2 *gd*

ACC NR: AR6023354

SOURCE CODE: UR/0271/66/000/004/E018/B018

AUTHOR: Fudin, Ye. V.

TITLE: Elements of pneumatic computer technology

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs. 43143

REF SOURCE: Sb. Avtomatiz. khim. i neftekhim. proiz-v. Vyp. I. M., 1965, 65-81

TOPIC TAGS: pneumatic computer, pneumatic device

TRANSLATION: Two elements of pneumatic computer technology are studied: amplifiers and condensers. Known circuits for pneumatic amplifiers are analyzed to show that it is not possible in one cascade to obtain a high coefficient of amplification and it is therefore necessary to use several amplification cascades. The requirements for multi-cascade amplifiers are formulated and their circuits shown. Equations are derived describing the processes in a pneumatic condenser. On the basis of these equations it is shown that a pneumatic condenser may operate in circuits having a strong negative feedback in the amplifier with one variable input and that the pneumatic capacity is a special case of a condenser. An estimate is made of condenser errors resulting from changes in temperature and pressure. 10 illustrations, bibliography has 4 titles. N. S.

SUB CODE: 09,13

UDC: 681.142.32,001

Card 1/1

ACC NR: AP6034047 SOURCE CODE: UR/0103/66/000/010/0136/0145

AUTHOR: Fudim, Ye. V.

46

ORG: none

TITLE: Design principles of <sup>160</sup>pneumatic computers with intermittent action

SOURCE: Avtomatika i telemekhanika, no. 10, 1966, 136-145

TOPIC TAGS: pneumatic computer, computer design, gas, computer technology, pneumatic computer technology

ABSTRACT: A method is discussed for intermittent calculations in pneumatic automatic computers based on the use of the gas state law. Without using analog mechanical assemblies the method makes it possible to design a linear controlled pneumatic resistor with an intermittent flow as well as a number of other important units and, based on them, a pneumatic computer with intermittent action. Orig. art. has: 6 figures and 20 formulas. [Based on author's abstract]

SUB CODE: 09/SUBM DATE: 25Feb66/ORIG REF: 008/

Card 1/1 *ml*

UDC: 62-525

ACC NR: AP6036716

SOURCE CODE: UR/0119/66/000/011/0014/0018

AUTHOR: Berezovets, G. T. (Candidate of technical sciences); Fudim, Ye. V. (Candidate of technical sciences); Kolerova, T. N. (Engineer); Tatarko, I. V. (Engineer)

ORG: none

TITLE: Computing devices designed with pneumatic pulsating linear resistors

SOURCE: Priborostroyeniye, no. 11, <sup>1966,</sup> 14-18

TOPIC TAGS: pneumatic computer, pneumatic device, pneumatic control system

ABSTRACT: The development of a linear pneumatic resistor which converts air pressure into a pulsating air flow is reported by the Institute of Automation and Telemechanics. The pulsating resistor consists of two contacts with a pneumatic capacitor inserted between them. When input pressure is 0, both contacts are open and the capacitor is connected to the input line. When input pressure is 1, this contact is closed, and consequently the capacitor is discharged through the open contact to the output line. The conductance of the device in respect to real time is proportional to the frequency of the input signal and to the value of the capacitance. The input signal, depending on the design of the contacts drive, can be pneumatic, hydraulic, or electric. Output is in the form of discrete pulses; the interval between pulses diminishes with increasing frequency until the signal is almost continuous. The pneumatic resistor can be used in pneumatic computing devices which necessarily

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UDC: 62.525:681.14

ACC NR: AP6036716

contain pneumatic pressure dividers, periodic circuits, and pneumatic integrators. It is concluded that the use of pneumatic resistors considerably reduces the error of pneumatic computing devices. Orig. art. has: 10 formulas and 7 figures. [GS]

SUB CODE: 13/<sup>09</sup> SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 5100

Card 2/2

ACC NR: AT6021728

SOURCE CODE: UR/0000/66/000/000/0057/0070

AUTHOR: Gorelik, N. G.; Koloydenko, A. L.; Podol'skiy, T. S.; Sokolov, V. N.;  
Stukalov, A. M.; Fudin, Ye. V.

ORG: none

TITLE: Design of pneumatic computing and control systems and their application in the automation of synthetic rubber production

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Pnevmoavtomatika (Pneumatic automation). Moscow, Izd-vo Nauka, 1966, 57-70

TOPIC TAGS: pneumatic control, pneumatic device, automatic pneumatic control, synthetic rubber, rubber working machinery, industrial automation, automatic control equipment

ABSTRACT: Pneumatic control systems used for automated production of synthetic rubber are described. Table 1 summarizes the types, functions, and typical applications of pneumatic devices in manufacturing of rubber. Three examples of specific applications follow. *Process optimization of contact breakdown of alcohol into divinyl.* This process depends on the catalyst activity, the composition of the contact mixture, feed of alcohol vapor, and catalyst temperature. The first two parameters are considered to be random disturbances and the last two, the controlling forces. The quality indicator of the process is the divinyl output for alcohol input. A block diagram of the system is

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ACC NR: AT6021728

TABLE 1

Type of device	Function	Typical applications
Computing	Processing of primary data	Noise filtering Time delay Linearization Decoding of chromatographic data
	Computation of complex parameters and generation of appropriate signals to control system	Final product output computation Computation of economic indicators Averaging
Control	Control according to a time program of the process parameters	Change of the control system from multi-loop to single loop when a predetermined criterion is reached Automatic ratio correction of two fractions fed when a predetermined criterion is reached

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ACC NR: AT6021728

TABLE 1 (Continued)

		The selection of a maximum (minimum) signal from a set of $n$ signals Gate valve switching in flow lines Control through optimizing systems
	Control in response to quality indicators	Stabilization Optimization

shown in figure 1. The output of controlled process 1 is fed into isothermic condenser 2 where the liquid and gaseous product components are separated to determine the values of divinyl content and the condensate density. Densitometer 4 and chromatograph 3 perform these functions. Decoder 5 decodes the output of the chromatograph to make the divinyl concentration explicit. Calculating system 6 computes the values of quality indicators according to a predetermined formula. Device 7 averages the quality indicator signal with respect to time and thus reduces noise. Limit controller 8 regulates stabilization system 9 and 10 which in turn control the temperature and alcohol feed. The design and performance of pneumatic calculator and the controller are given in detail. *The pneumatic decoder for the DCHP-3 Chromatograph is intended for automa-*

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ACC NR: AT6021728

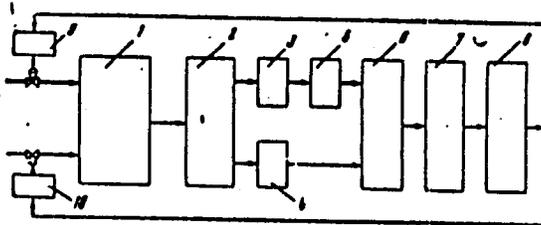


Fig. 1

tic processing of the chromatograph output. The concentration of the component of interest is determined from the partial pressures. The decoder controls the operation of the chromatograph and selects the times at which the desired output is available from it. The operation of this system is described and a block diagram included. *Pneumatic timer*. This is a program timer which controls the individual phases of the process with respect to time. Glass capillaries are used for controlled discharge of air. The timing is controlled by changing the appropriate container volumes (capacitor analogues). The timer system is also reported in detail, including block and timing diagrams. Orig. art. has: 24 formulas, 10 figures, 2 tables.

SUB CODE: 13, <sup>11</sup>/<sub>12</sub> / SUBM DATE: 03Feb66/ ORIG REF: 004

Card 4/4

ACC NR: AT6021741

SOURCE CODE: UR/0000/66/000/000/0172/0179

AUTHOR: Fudim, Ye. V.

ORG: none

TITLE: Pneumatic capacitors

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Pnevmoavtomatika (Pneumatic automation). Moscow, Izd-vo Nauka, 1966, 172-179

TOPIC TAGS: pneumatic device, capacitor, linear system, nonlinear system

ABSTRACT: This article derives equations for a pneumatic capacitor showing in particular that it can operate in systems with great negative feedback in an amplifier with a variable input and also that its pneumatic capacity is a particular case of the capacitor. An evaluation is made of capacitor error from change in temperature and atmospheric pressure. The pneumatic capacitor is an analog of the electrical and hydraulic capacitors and its schematic does not differ from that of the latter. It contains two chambers  $V_1$  and  $V_2$  serving as plates. The chambers are divided by a hermetically-sealed movable diaphragm which may be a piston, a liquid column, or a siphon. Motion of the diaphragm gives a linear relationship between volume of chambers  $V_1$  and  $V_2$  and pressure difference ( $P_1$  and  $P_2$ ) in the chambers:

$$\frac{dV_1}{dt} = - \frac{dV_2}{dt} = c \frac{d(\bar{P}_1 - \bar{P}_2)}{dt}, \quad (1)$$

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ACC NR: AT6021741

where  $c$  is a constant factor. From this is derived

$$I = c \frac{d(P_1 - P_2)}{dt} + \frac{V_1}{\bar{P}_1} \frac{d\bar{P}_1}{dt}, \quad (2)$$

the equation of the pneumatic capacitor. The particular conditions treated are: (1) capacitor with stabilized pressure at current input ( $d\bar{P}_1/dt = 0$ ); (2) capacitor with stabilized pressure at input connected with pressure source ( $d\bar{P}_2/dt = 0$ ); (3) capacitor with stabilized charge, i.e., immobile diaphragm barrier ( $d[P_1 - P_2]/dt = 0$  or  $c = 0$ ); (4) capacitor with infinitely large capacity ( $c = \infty$ ). Errors involving temperature and unstable atmospheric pressure are discussed. The capacitor may be linear or nonlinear, depending on whether or not both sides are connected to a pressure source. Orig. art. has: 38 formulas and 2 figures.

SUB CODE: 13/ SUBM DATE: 03Feb66/ ORIG REF: 001  
09/

Card 2/2

ACC NR: AP6036715

SOURCE CODE: UR/0119/66/000/011/0011/0014

AUTHOR: Fudim, Ye. V. (Candidate of technical sciences)

ORG: none

TITLE: New principles for designing pneumatic computers

SOURCE: Priborostroyeniye, no. 11, 1966, 11-14

TOPIC TAGS: pneumatic computer, fluid computer

ABSTRACT: A pneumatic capacity (closed vessel), in which a gas obeys the basic gas-state law ( $PV = GR\theta$ ), is suggested as a principal element for constructing a pneumatic computer. Successive connection of this capacity to sources of various pressures is suggested as a basis for computer operations; such operations can be realized in a linear variable pneumatic resistor proposed by the author earlier. The resistor controllability permits designing various assemblies with pressure-

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UDC: 62.525:681.14

ACC NR: AP6036715

frequency-, and capacity-type feedback: hence, linear and nonlinear, digital and analog computing operations become possible. Linear-operation pressure-type devices include pulsating resistors and amplifiers connected in passive pneumatic circuits. Principal schemes of these devices are explained: multipliers of a constant factor by a fixed-sign or alternate signal; an integrator; a differentiator; a frequency-feedback circuit; a multiplier-divider; a linear-sweep circuit; a digital circuit for nonlinear operations on fixed-sign pressures; a binary-number-into-gas-flow device. Orig. art. has: 11 figures and 32 formulas.

SUB CODE: 13, 09 / SUBM DATE: none / ORIG REF: 005

Card 2/2

STEPANITSKIY, Yakov Moiseyevich; FUDIMAN, Grigoriy Moiseyevich;  
DUBROVSKIY, V.A., red.; SILIN, V.S., red.; BALLOD, A.I.,  
tekhn.red.

[Tolerances in tractors and motor vehicles; pocket handbook]  
Zazory v traktorakh i avtomobiliakh; karmannyi spravochnik.  
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 365 p.

(MIRA 14:2)

(Tractors--Maintenance and repair)  
(Motor vehicles--Maintenance and repair)

NIKIFOROV, M.A.' kand. ekonomicheskikh nauk, dotsent; FUDINA, A.V.,  
kand. ekonomicheskikh nauk, assistent

Production of vegetable and potatoes on specialized state  
farms in Moscow Province. Izv. TSKHA no.2:204-212 '63.

(MIRA 16:10)

FUDULOV, D.

"Improving the Seed Production of Forage Peas." p. 19,  
(KOOPERATIVNO ZEMEDELIE, Vol. 10, No. 2, Feb. 1955, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4  
No. 5, May 1955, Uncl.

FUDULOV, D.

"What We Should Know About the Sowing of Sunflowers, Hemp, Flax, Sugar Beets, Aniseed, and Lallelantia." p. 20,  
(KOOPERATIVNO ZEMEDELIE, Vol. 10, No. 2, Feb. 1955, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4  
No. 5, May 1955, Uncl.

Country : Bulgaria  
Category : CULTIVATED PLANTS. GRAINS  
Abs. Jour. : REF ZHUR.BIOL..21.1958. NO-95972  
Author : Fudulov, D.  
Institut. : Inst. of Agriculture and Forestry  
Title : Determining the Best Sowing Time for Seed Peas  
in Dobrudja  
Orig. Rep. : Nauchni tr. M-vo na zemled. i gorite. Ser. rasteni-  
ev'dstvo, 1957, 2, No. 2, 1-10.  
Abstract : At the Institute of Agriculture in Dobrudja (Bul-  
garia) a study was made of the sowing time for  
peas to provide a stable seed crop and minimum  
loss through the pea weevil (*Bruchus pisorum*) and  
the pea tortricid (of the genus *Laspeyresia*). Fine  
and stable yields of straw and peas with high  
absolute weight and low percentage of damage can  
be gotten by planting, during the first days in March.  
Earlier sowing in February during some years pro-  
vide very high yields, while in other years frost  
Card: 1/2

Category : CULTIVATED PLANTS. GRASSES M  
Abs. Jour. : REF ZHUR.BIOL.,21.1958, NO-95972  
Author :  
Institut. :  
Title :  
Orig. Pub. :  
Abstract : threatened the crops. Late spring and summer sowings do not yield satisfactory results.--O.V. Yakushkina

Card: 2/2

S/169/61/000, 006/033/039  
A005/A130

AUTHORS: Ayzu, Kh., Fudzhimoto, I., Khazegava, S., Koshiba, M.,  
Mito, I., Nishimura, Dzh., Iokon, K., Shayn, M.

TITLE: Primary cosmic radiation at Prince Albert, Canada

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1961, 12, abstract  
6083. (Tr. Mezhdunar. konferentsii po kosmich. lucham, 1959,  
T. 3. Moscow, AN SSSR, 1960, 110-115)

TEXT: The authors analyzed data from the recording of heavy nuclei  
of primary cosmic radiation. The measurements were conducted on September  
11, 1957 with the aid of a photoemulsion pile at an altitude of 36 km  
(geomagnetic latitude 62°N). Differential energy spectra were obtained  
of  $\alpha$ -particles, nucleus groups C, N, O; F - Si; P - Fe, and Li, Be and B  
in the energy range from 150 to 800 Mev/nucleon. The shapes of the spectra  
for all groups except Li, Be and B were the same. The streams of Li-, Be-  
and B-nuclei evince a pronounced increase of intensity (relative to the  
C, N and O groups) at energies of 300-700 Mev/nucleon. Analysis of the

Card 1/2

S/169/61/000/008/053/ 19

Primary cosmic radiation at Prince Albert, Canada A005/A130

fragmentation probability of the heavy nuclei as a function of energy shows that the relative increase in quantity of the light nuclei is due to an increase in the quantity of matter permeable to heavy ( $Z \geq 6$ ) low energy nuclei. Therefore the authors conclude that the mechanism of Fermi acceleration is not very effective in interstellar space for low energies. the most probable origin of cosmic rays is in Supernovae with subsequent diffusion throughout the Galaxy. The authors examine the question of the relative abundance of different elements in primary radiation. They show that a number of peculiarities detected in the high energy range are also observed at energies  $\approx 700$  Mev/nucleon. Owing to the fact that no antiparticle whatsoever was detected, the value 0.1% was obtained for the upper limit of the amount of antimatter in primary cosmic radiation.

N. Kammer

[Abstractor's note: Complete translation.]

Card 2/2

CZECHOSLOVAKIA

FUEGNEROVA, M., MD.

General Health Information (Ustredi zdravotnicke osvety),  
Prague

Prague, Prakticky lekar, No 4, 1963, pp 150-152

"Questions Youths are Asking."

HUNGARY/High Polymer Chemistry.

I

Abstr Jour: Ref Zhur-Khim., No 8, 1959, 30911.

Author : Tuedos, F and Smirnov, N. I; Tuedos, F. and Fuerst, V.

Inst : Hungarian Academy of Sciences.

Title : Kinetics of the Inhibition of the Thermal Polymerization of Styrene. I. Kinetics of One-Stage Inhibition. II. Mechanism of Two-Stage Inhibition. III. Copolymerization of the Inhibitors. IV. Quinone-Inhibited Thermal Polymerization of Styrene. V. Mechanism of the Action of Stable Free Radicals.

Orig pub: Acta Chim Acad Sci Hung, 15, No 4, 389-399, 401-408, 409-415, 417-439, 441-448 (1958) (in German with English and Russian summaries)

Abstract: I. The authors have applied the principle of Bodenstein

Card : 1/3

347

HUNGARY/High Polymer Chemistry.

I

Obs Jour: Ref Zhur-Khim., No 6, 1959, 30011.

monomer with the inhibitor are discussed. The fundamental kinetic equations are derived.

IV. The authors have investigated the TIS in the presence of quinones. The experimental data fit the equations derived for the two-stage inhibition mechanism. The activation energies of a number of elementary reactions have been determined.

V. The authors have investigated the TIS in the presence of 1,1-diphenyl-2-picryl hydrazide (U). It is shown that in this case I acts both as inhibitor and initiator. An explanation is presented of the retarding effect observed at the termination of the inhibition period. -- From a summary by the authors.

Card : 3/3  
1128

E N D  
348

FUERTES) V.I.A.; GAMBA, O.M.; KOCZOGH, Akosne [translator]

The construction and putting into operation of the first Argentine reactor. Atom taj 2 no.1:146-189 Ja '59.

LAGUTINA, N.I., prof., red.; LAPIN, B.A., doktor med. nauk, red.;  
CHERKOVICH, G.M., kand. med. nauk, red.; SOLOPAYEV, B.P.,  
kand. med. nauk, red.; DIKOVENKO, Ye.A., kand. med. nauk,  
red.; FUFACHEVA, A.A., mladshiy nauchnyy sotr., red.;  
AVAKOV, P.V., tekhn. red.

[Problems in the physiology and pathology of monkeys] Voprosy  
fiziologii i patologii obez'ian; sbornik rabot. Sukhumi,  
1961. 339 p. (MIRA 15:11)

1. Akademiya meditsinskikh nauk SSSR, Moscow. Institut ekspe-  
rimental'noi patologii i terapii, Sukhum.  
(MONKEYS—PHYSIOLOGY)

MIL'SHTEYN, G.I.; URMANCHEYEVA, T.G.; FUFACHEVA, A.A.

Effect of lysergic acid diethylamide on the electric activity of the cerebral cortex and some subcortical formations in monkeys. Fiziol. zhur. 49 no.2:173-180 F'64 (MIRA 17:3)

1. Laboratoriya fiziologii i patologii vysshey nervnoy deyatelnosti Instituta eksperimental'noy patologii i terapii AMN SSSR, Sukhumi.

FUFACHEVA, A.A.

Tonic vagal effect on the cardiac activity in lower monkeys.  
Fiziol.zhur. 51 no.11:1315-1322 N '65.

(MIRA 18:11)

1. Laboratoriya fiziologii i patologii vysshey nervnyy  
deyatel'nosti Instituta eksperimental'noy patologii i  
terapii AMN SSSR, Sukhumi.

FUFAYEV, A. A. and ARBUZOV, Yu. A.

"Synthesis of 1-Aryl- $\Delta$ -Pyrrolines," Dokl. AN SSSR, 85, No.5, 1952

36546

S/081/62/000/006/080/117  
B167/B101

11.9700

**AUTHORS:** Monastyrskiy, V. N., Fufayev, A. A., Perel'miter, M. S.  
**TITLE:** Synthesis and production technology of the multicomponent additive VNII NP-360 for engine lubricating oils  
**PERIODICAL:** Referativnyy zhurnal. Khimiya, no. 6, 1962, 539, abstract 6M248 (Sb. "Prisadki k maslam i toplivam" M. Gostoptekhizdat, 1961, 128-133)

**TEXT:** The starting material for the synthesis of the components of the additive VNII NP-360, consisting of Ba alkyl phenolate and Zn dialkyl phenyl dithiophosphate in the ratio of 5:2 parts by weight, is the alkyl phenol obtained by alkylating phenol with olefins containing 8-12 carbon atoms. Ba alkyl phenolate has wetting properties. It is prepared by treating the alkyl phenol with  $Ba(OH)_2$ . Zn dialkyl phenyl dithiophosphate, an antioxidant and a wear and corrosion inhibitor, is prepared by the reaction of alkyl phenol with  $P_2S_5$ , followed by treatment of the product with ZnO. Both processes are carried out in an oil diluent which lowers the viscosity of the medium. Test-bench trials of the additive  
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B167/B101

VNII NP-360 on engines of various types (A-35 (D-35), ЯАЗ -204 (YaAZ-204), etc.) and also operating trials on Diesel engines 2-100 (2D 100) and tractor engines have indicated that this additive is more effective than conventional additives and can be recommended, in the first instance, for Diesel engines operating with Diesel fuel containing sulfur. A production diagram is suggested. [Abstracter's note: Complete translation.]

X

Card 2/2

1. FUFAYEV, A. M.
2. USSR (600)
4. Machine-Tractor Stations
7. Field headquarters of tractor brigades. Dost. sel'khoz. no. 2, '52.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

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Les 1 step', 4, no. 1, 1952.

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7. New mechanization developments in hydraulic work. See also: S. M. P., 1953.

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Tenants helped to repair the apartment house, Zhil.-kom. khoz. 7  
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niya.

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(MIRA 16:10)

1. Starshiy tekhnik Donskogo gidrorayona.

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Changing over from acetylene to electric lighting. Rech. transp.  
24 no.5:51 '65. (MIRA 18:9)

1. Starshiy tehnik Donskogo rayona gidroscoruzheniy.

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Dissertation: "Structural Changes During Electric Spark Surface Hardening of Steel," Can Tech Sci, Moscow Machine-Tool and Instrument Inst, Moscow 1953.

SO: Referativnyy Zhurnal, No. 5, Dec 1953, Moscow, AN URSR (~~132915~~) W-30928

~~FR~~ FUFAYEV, L.S.

GOLOVLEV, V.D., dotsent, kandidat tekhnicheskikh nauk; DMITRIYEV, N.A., kandidat tekhnicheskikh nauk; KASENKOV, M.A., dotsent, kandidat tekhnicheskikh nauk; OSTROVSKIY, Ya.I., inzhener; TAMBOVTSEV, S.P., dotsent, kandidat tekhnicheskikh nauk; FUFAYEV, L.S., kandidat tekhnicheskikh nauk; SHEPTUNOV, K.L., dotsent, kandidat tekhnicheskikh nauk.

"Metallurgy." A.N.Gladilin and others. Reviewed by V.D.Golovlev and others. Vest.mash. 34 no.11:103-106 N '54. (MLRA 7:11)  
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MITIN, V.I., inzh., red.; MATVEYEVA, Ye.M., tekhn.red.

[Principles of physical metallurgy] Osnovy materialovedeniia.  
Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957.  
103 p. (MIRA 11:2)  
(Physical metallurgy)

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 166 (USSR) SOV/137-58-12-25208

AUTHOR: Fufayev, I. S.

TITLE: Structural Changes in Surface Layers of Technically-pure Iron After Electric-spark Hardening (Strukturnyye izmeneniya v poverkhnostnykh sloyakh tekhnicheskii chistogo zheleza posle elektroiskrovogo uprochneniya)

PERIODICAL: Tr. Kafedry "Tekhnol. metallov". Mosk. stankoinstrum. in-t, 1957, Nr 1, pp 32-38

ABSTRACT: An investigation was made of the change in the surface layer of technically-pure Fe during electric-spark hardening which was performed with electrodes (E) of technically-pure Fe, graphite, and the hard alloy T15K6; hardening time was 1-3 min. The effect of the action of a single spark discharge on the structure of technically-pure Fe were examined first. A crater 0.3 - 0.4 mm in diam with fused inner surface is formed between the surface of the experimental specimen and the electrodes. Metallographic investigation showed that the edges of the crater are surrounded by a zone with a structure different from that of the parent material. Description is

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